

**STATE FOREST LAND
ENVIRONMENTAL CHECKLIST**

Purpose of Checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can. *Questions in italics are supplemental to Ecology's standard environmental checklist. They have been added by the DNR to assist in the review of state forest land proposals. Adjacency and landscape/watershed-administrative-unit (WAU) maps for this proposal are available on the DNR internet website at <http://www.dnr.wa.gov> under "SEPA Center." These maps may also be reviewed at the DNR regional office responsible for the proposal. This checklist is to be used for SEPA evaluation of state forest land activities.*

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later. *All of the questions are intended to address the complete proposal as described by your response to question A-11. The proposal acres in question A-11 may cover a larger area than the forest practice application acres, or the actual timber sale acres.*

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON PROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer" and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:

Timber Sale Name: PUSH Agreement #: 30-084710

2. Name of applicant: **Washington State Department of Natural Resources**

3. Address and phone number of applicant and contact person:

**Pacific Cascade Region
P.O. Box 280
601 Bond Road
Castle Rock, WA 98611
Contact Person: Marcus Johns
Phone# (360) 577-2025**

4. Date checklist prepared: **07/13/2009**

5. Agency requesting checklist: **Washington State Department of Natural Resources**

6. Proposed timing or schedule (including phasing, if applicable):

- a. Auction Date: February 25, 2010
b. Planned contract end date (but may be extended): October 31, 2010
c. Phasing: None*

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Timber Sale

- a. Site preparation:*

Aerial and ground herbicide spraying and slash piling site prep may be used to ensure that planting can be achieved at acceptable stocking levels that meet or exceed Forest Practices standards.

- b. Regeneration Method:*

Unit will be hand planted to meet or exceed the minimum Forest Practices standards. Some natural regeneration is expected.

c. Vegetation Management:

Treatment will be based on vegetative competition, and will ensure a free-to-grow status that complies with Forest Practice standards. Vegetation management needs will be assessed from plantation ages 3 to 8. Vegetation control activities will occur as needed.

d. Thinning:

As needed to meet desired density, stocking, species diversity, and growth. Pre-commercial thinning needs will be assessed between 7 and 15 years of age. Commercial thinning potential will be assessed at approximately 25 years of age.

Roads: Routine road maintenance, periodic ditch and culvert cleaning as necessary. Construction, reconstruction and abandonment are associated with forest management activities.

Rock Pits and/or Sale: State 8 Quarry and Perry Creek Quarry will be used for future road construction activities associated with forest management operations.

Other: Firewood permits for the sale area may be available to the public if, after harvest, downed wood is plentiful near roadsides. Landing debris may be burned following harvest activities.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

☒ 303 (d) – listed water body in WAU: ☒ temp ☐ sediment ☒ completed TMDL (total maximum daily load): Kennedy Creek WAU (temp and TMDL) and McLane Creek WAU (temp only). Note: In the Kennedy Creek and McLane Creek WAU’s, 303(d) waters were identified from data taken in 2004. The map dated 2008 provided by DOE at their web site (<http://apps.ecy.wa.gov/wqawa/viewer.htm>) no longer identifies these waters as 303(d) listed, except Summit Lake which is PCB (Polychlorinated biphenyl) listed.

☐ Landscape plan:

☒ Watershed analysis: Kennedy Creek Watershed Analysis

☐ Interdisciplinary team (ID Team) report:

☒ Road design plan: Available at Pacific Cascade Region Office.

☒ Wildlife report: Available at Pacific Cascade Region Office.

☐ Geotechnical report:

☐ Other specialist report(s):

☐ Memorandum of understanding (sportsmen’s groups, neighborhood associations, tribes, etc.):

☒ Rock pit plan: Available at Pacific Cascade Region Office.

☒ Other: Policy For Sustainable Forests (PSF) dated December 2006; State Soil Survey; Washington State Department of Natural Resources Habitat Conservation Plan (HCP) dated September 1997; ESA listed Salmonid Species Map from Forest Practices, dated 1999; Road Maintenance and Abandonment Plan; Weighted Old Growth Habitat Index (WOGHI); DNR GIS Databases; HCP Checklist: Available at Pacific Cascade Region Office.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

None known.

10. List any government approvals or permits that will be needed for your proposal, if known.

☒ HPA: Blanket HPA 103081-1 for tailholds. ☒ Burning permit (if landing piles are burned) ☐ Shoreline permit

☒ Incidental take permit: 1168 and PRT812521 ☒ FPA # 2920234

☐ Other:

11. Give brief, complete description of our proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include specific information on project description.)

a. Complete proposal description:

This proposal is a variable retention timber harvest that will occur under the guidelines of the DNR State Lands HCP and the Policies for Sustainable Forests. The proposal includes the following elements:

- Aesthetics
- Leave Trees
- Legacy Trees
- RMZ
- Kennedy Creek Watershed Analysis
- WMZ
- HCP Marbled Murrelet Interim Strategy
- Road Construction
- Rock will be removed from State 8 Quarry located in Section 16 Township 18N Range 03W W.M. and Perry Creek Quarry located in Section 15 Township 18N Range 03W, W.M.

Unit	Proposal Acres	RMZ/WMZ Acres	Unstable Slope Acres	Sale Acres	Existing Road Acres	Leave Tree Acres	Internal Road R/W Acres	Harvest Acres
name	gross				within unit	clumped acres	for thins	net
1	59	0	0	59	0	5	0	54
2	66	9	0	57	2	2	0	53
Totals	125	9	0	116	2	7	0	107

b. Timber stand description pre-harvest (include major timber species and origin date), type of harvest, overall unit objectives.

Pre-harvest:

Unit	Age	Species Composition
1	91	Overstory: Douglas-fir, western hemlock, western redcedar, red alder and bigleaf maple Understory: swordfern, Oregon grape, salal
2	72	Overstory: Douglas-fir, western hemlock, western redcedar, red alder and bigleaf maple Understory: swordfern, Oregon grape, salal, salmonberry, skunk cabbage

Type of Harvest: This proposal involves a variable retention harvest of 107 acres.

Overall Unit Objectives: The overall objectives for this timber harvest are to provide financial benefit to the trust beneficiaries and establish wildlife habitat by successfully regenerating the unit and by applying upland forest resource management.

c. Road activity summary. See also forest practice application (FPA) for maps and more details.

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		4,649	3	0
Reconstruction		0		0
Abandonment		0	0	0
Bridge Install/Replace	0			0
Culvert Install/Replace (fish)	0			0
Culvert Install/Replace (no fish)	0			

12. Location of proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. (See timber sale map available at DNR region office, and/or color landscape/WAU map on the DNR website <http://www.dnr.wa.gov> under "SEPA Center.")

a. Legal description:

Push Unit 1 is located in portions of Sections 17, 19, and 20 of Township 18N Range 03W, W.M.
Push Unit 2 is located in portions of Sections 26 and 35 of Township 18N Range 03W, W.M.
State 8 Quarry is located in portions of Section 16 of Township 18N Range 03W, W.M.
Perry Creek Quarry is located in portions of Section 15 of Township 18 N, Range 03W, W.M.

b. Distance and direction from nearest town (include road names):

Unit 1 is located approximately 8 miles by road west of Olympia. SR-8 to Summit Lake Rd. to S-LINE.
Unit 2 is located approximately 13 miles by road west of Olympia. SR-8 to B-LINE to B-8000.
State 8 Quarry is located approximately 12 miles by road west of Olympia. SR-8 to Summit Lake Rd. to S-LINE to S-2000 to S-2200 to S-2220.
Perry Creek Quarry is located approximately 13 miles by road west of Olympia. Take SR-8 to B-LINE to B-8000 to B-8400 to B-8430 to B-8431.

c. Identify the watershed administrative unit (WAU), the WAU Sub-basin(s), and acres. (See also landscape/WAU map on DNR website <http://www.dnr.wa.gov> under "SEPA Center.")

WAU Name	WAU Acres	Proposal Acres
KENNEDY CREEK	22840.8	59
Sub-Basin Name	Sub-Basin Acres	Proposal Acres
Sub-Basin #7	4289	24
Sub-Basin #8	3086	35

WAU Name	WAU Acres	Proposal Acres
MCLANE CREEK	21985	66
Sub-Basin Name	Sub-Basin Acres	Proposal Acres
Sub-Basin #7	2869	3
Sub-Basin #8	1947	63

13. Discuss any known future activities not associated with this proposal that may result in a cumulative change in the environment when combined with the past and current proposal(s). (See digital ortho-photos for WAU and adjacency maps on DNR website <http://www.dnr.wa.gov> under "SEPA Center" for a broader landscape perspective.)

This proposal is located within the Kennedy Creek WAU and the McLane Creek WAU in the DNR's Capitol State Forest.

In the Kennedy Creek WAU, the uplands are mainly managed for timber production. Ownership includes small private landowners and DNR managed forests. Approximately 38% of the Kennedy Creek WAU is DNR managed forestland with the remaining 62% consisting of a mix of private forestland, farmland and residential areas. The majority of the residential areas lie on the northern and eastern edges of the Kennedy Creek WAU. Forest stands within the WAU appear to be almost exclusively second and third growth stands. The number of currently active and recently expired Forest Practice Applications shown on the WAU map (referenced on the above DNR website) along with personal observations within the WAU indicates the forests appear to be managed for production of wood products. Management includes regeneration harvest, thinning, and partial cuts.

In the McLane Creek WAU, the majority of the uplands are located on the west side and are managed for timber production, primarily by the DNR. Approximately 17% of the McLane Creek WAU is DNR managed forestland with the remaining 83% consisting of a mix of private forestland, farmland, rural residential, suburban residential, urban and light industrial areas. Forest stands within the WAU are predominantly second and third growth timber stands and are found mostly in the uplands. The number of currently active and recently expired Forest Practice Applications shown on the WAU map (referenced on the above DNR website) along with personal observations of the uplands within the WAU indicates the forests appear to be managed for production of wood products. Management on the upland areas includes regeneration harvest, thinning, and partial cuts. Heavily-altered, arboricultural landscapes occur in the lowland rural and suburban areas.

This proposal will have an impact on the aesthetics in the general vicinity. It will change from a stand of mature timber to a recent harvest with RMZ’s adjacent to the type 3 and 4 streams and scattered leave trees throughout. This proposal is aligned with the land usage of 38% of the Kennedy Creek WAU and 17% of the McLane Creek WAU. It should have minimal cumulative effect on aesthetics.

There is a 0.7 acre wetland which will be bounded out of Unit 2 by a 100-foot buffer in accordance with the HCP Riparian Strategies. The proposed activity should have a minimal cumulative effect on the adjacent wetland.

Scattered legacy trees from pre-settlement aged stands were found in Unit 1. These trees will be retained on the proposal site. This proposal should have a minimal cumulative effect on the legacy trees.

This proposal is located within the range of potential Bull Trout habitat. However, Bull Trout habitat is protected under the Department of Natural Resources HCP’s Riparian Strategies. This proposal should have a minimal cumulative effect on the Bull Trout habitat.

The following table is an estimated summary of past and future activity on DNR-managed land and privately managed land in the WAU (information is based off of Forest Practices applications that have been approved in the last seven years compiled by the Department’s GIS database). No attempt was made to predict future timber harvest on other ownerships within the WAU. The source of this information only provided the acreage on the WAU level. This information is derived from activity locations collected by varying methods ranging from hand drawn maps to precise GPS collection. No verification of map accuracy or activity completion is conducted. Totals may not be the sum of all harvest types due to overlapping activities. The same land may be counted more than once if, in the past seven years, more than one Forest Practice application has been approved for different harvests (salvage and even age for example). All acreages are approximate. Rounding to the nearest 10 or even to the nearest 50 acres may be appropriate. Proposed future acres are uncertain. The acreages on DNR land represent a likely harvest strategy for the remainder of the current fiscal year.

Kennedy Creek WAU	WAU ACRES/SUB- BASIN ACRES	ACRES OF EVEN-AGED HARVEST WITHIN THE LAST SEVEN YEARS	ACRES OF UNEVEN-AGED HARVEST WITHIN THE LAST SEVEN YEARS	PROPOSED ACRES OF EVEN-AGED HARVEST IN THE FUTURE	PROPOSED ACRES OF UNEVEN-AGED HARVEST IN THE FUTURE
DNR MANAGED LAND	9,228	0	0	59	0
OTHER OWNERSHIP	13,613	0	0	Unknown	Unknown
TOTAL	22,841	0	0	Unknown	Unknown
McLane Creek WAU	WAU ACRES/SUB- BASIN ACRES	ACRES OF EVEN-AGED HARVEST WITHIN THE LAST SEVEN YEARS	ACRES OF UNEVEN-AGED HARVEST WITHIN THE LAST SEVEN YEARS	PROPOSED ACRES OF EVEN-AGED HARVEST IN THE FUTURE	PROPOSED ACRES OF UNEVEN-AGED HARVEST IN THE FUTURE
DNR MANAGED LAND	3,721	0	0	66	0
OTHER OWNERSHIP	18,264	0	0	Unknown	Unknown
TOTAL	21,985	0	0	Unknown	Unknown

Kennedy Creek Sub-basin #7 This sub-basin is 4,289 acres in size. In this sub-basin, the closest regeneration harvest to Unit 1 is a 9-acre plantation of 7-year-old reproduction 650 feet to the south. Additional stands within the WAU will be selected for regeneration, thinning, and partial cut harvests in the future.

Kennedy Creek Sub-basin #8 This sub-basin is 3,086 acres in size. In this sub-basin, the closest regeneration harvest to Unit 1 is an 8-acre plantation of 11-year-old reproduction adjacent to the western boundary. Additional stands within the WAU will be selected for regeneration, thinning, and partial cut harvests in the future.

McLane Creek Sub-basin #7 This sub-basin is 2,869 acres in size. In this sub-basin, the closest regeneration harvest to Unit 2 is a 38-acre plantation of 10-year-old reproduction adjacent to the western boundary. Additional stands within the WAU will be selected for regeneration, thinning, and partial cut harvests in the future.

McLane Creek Sub-basin #8 This sub-basin is 1,947 acres in size. In this sub-basin, the closest regeneration harvest to Unit 2 is a 42-acre plantation of 17-year-old reproduction adjacent to the western boundary. Additional stands within the WAU will be selected for regeneration, thinning, and partial cut harvests in the future.

In addition: Ongoing assessments of road maintenance needs within the Kennedy Creek and McLane Creek WAUs are taking place under the HCP and Forest Practices RMAP process. To reduce the possibility that this proposal may contribute to an increased chance of environmental impact, several mitigative measures will be included in this proposal. To ensure soil protection, soils exposed during road construction will be seeded with grass and/or straw. Haul routes for this proposal have been evaluated for potential impact to the environment. To assure runoff from roads and sediment delivery is controlled during the hauling of forest products, multiple cross drains, sediment ponds, and other structures or methods will be used to disconnect ditch water from streams. Proposed roads will be located and designed to avoid diversion and concentration of runoff and discharge onto or above steep slopes. Ditch water will be dispersed onto the forest floor in stable areas for filtering prior to entering watercourses. To ensure soil protection, soils exposed during road construction will be seeded with grass and/or straw may be applied. Where necessary, other restoration measures may be applied to stabilize soils and enhance vegetation growth. Boundaries of the units along streams were located away from any over-steepened slopes.

Furthermore, to provide structural diversity for wildlife habitat, maintain fish habitat, and limit possible effects to aesthetic appearances, individual leave trees and leave tree clumps have been identified for retention throughout the proposal. RMZs will be maintained along type 3 and type 4 streams. The RMZs will help reduce potential sedimentation, provide a source of large woody debris (LWD) to streams, maintain shade, reduce the aesthetic impact, and provide habitat for wildlife (see B.3.a.1.b.). Wildlife reserve and legacy trees will be retained throughout the proposal to provide structural diversity for wildlife habitat. These stands will be managed in a manner to maintain site productivity and water quality of adjacent streams.

This proposal is in the South Puget HCP Planning Area, which has not been surveyed in its entirety for marbled murrelet habitat. A DNR biologist has been on site and verified no suitable marbled murrelet habitat exists in the proposal. In Unit 2, approximately 18 suitable marbled murrelet nest platform trees exist. These trees did not create a 5 acre suitable habitat block, thus per HCP Marbled Murrelet Strategy this area will not be retained as a clump for murrelet habitat. The majority of the trees with platforms will be retained on this unit as large and/or structurally unique trees and count towards leave tree calculations.

Logging operations will be conducted in such a manner as to avoid severe ground disturbance. RMZs, leave trees and the 30-foot Equipment Limitation Zone on type 5 streams will help limit ground disturbance, provide filtration, and protect stream integrity. Lead end suspension will be required on all cable settings, to minimize sediment delivery to streams. Ground based yarding will be restricted to dry conditions in areas where yarding, slope stability or soil erosion will impact water quality. Operations shall be suspended and sediment control devices required, when necessary, to minimize sediment delivery to streams. The units will be planted upon completion of logging.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (check one):

☐Flat, ☐Rolling, ☒Hilly, ☐Steep Slopes, ☐Mountainous, ☐Other:

1) General description of the WAU or sub-basin(s) (landforms, climate, elevations, and forest vegetation zone).

The Kennedy Creek WAU ranges from approximately 0 to 2,286 feet in elevation and generally consists of hilly topography with moderate to steep slopes and numerous incised draws. The WAU receives approximately 50 to 60 inches of precipitation annually, the majority of which falls as rain. The primary timber type is Douglas-fir with red alder dominating the draws and lowlands. Secondary species include bigleaf maple, western redcedar and western hemlock. The WAU is located in the western hemlock vegetation zone.

The McLane Creek WAU ranges from approximately 0 to 1,857 feet in elevation an generally consists of flat to hilly topography with moderate to steep slopes and numerous incised draws. The WAU receives approximately 50 to 60 inches of precipitation annually, the majority of which falls as rain. Where timbered areas exist, the primary timber type is Douglas-fir with red alder dominating the draws and lowlands. Secondary species include bigleaf maple, western redcedar and western hemlock. The WAU is located in the western hemlock vegetation zone.

2) Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).

The vicinity of the proposal matches the general description of the WAUs.

b. What is the steepest slope on the site (approximate percent slope)?

The steepest slope is 60%.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland. *Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. It can help indicate potential for shallow, rapid soil movement, but often does not represent deeper soil sub-strata. The actual soils conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors. The state soil survey is a compilation of various surveys with different standards.*

State Soil Survey #	Soil Texture or Soil Complex Name	% Slope	Acres	Mass Wasting Potential	Erosion Potential
6640	SILT LOAM	65-90	27	HIGH	HIGH
1639	V.GRAVELLY LOAM	3-15	25	INSIGNIFIC	LOW
0578	SILT LOAM	20-40	24	LOW	MEDIUM
1640	V.GRAVELLY LOAM	15-30	20	INSIGNIFIC	LOW
7216	V.GRAVELLY LOAM	40-65	16	LOW	MEDIUM
3850	V.COBBLY LOAM	20-40	4	LOW	LOW

Overall, the steepest slopes in the proposal area are 60%, though slopes as steep as 90% may exist over short (less than 50') distances. The state soils survey table above does not accurately reflect topographical conditions found on site. No unstable slope indicators, such as slope cracks, 'jack-strawed' or 'drunken' trees, scarps, etc. were found on the site. Therefore mast wasting potential and erosion potential are not as high as indicated.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

1) Surface indications:

Surface indicators such as dry site vegetation and mature, straight conifer trees show the area to be stable.

2) Is there evidence of natural slope failures in the sub-basin(s)?

☐No ☒Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:

There are indicators of shallow slope failures in several places in the sub-basins. These are generally associated with the slopes greater than 65% found most commonly within the RMZs, along the toes of slopes located within main draws, within hollows that extend as far up as mid-slope, and/or within headwalls at the top of the steeper draws.

- 3) Are there slope failures in the sub-basin(s) associated with timber harvest activities or roads?
☐ No ☒ Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:
Associated management activity:

Within the sub-basins, some shallow-rapid side cast failures associated with roads have occurred, mostly where roads were constructed prior to the Forest Practices Act and where roads utilizing side-cast construction techniques are located mid-slope on steep side slopes.

- 4) Is the proposed site similar to sites where slope failures have occurred previously in the sub-basin(s)?
☒ No ☐ Yes, describe similarities between the conditions and activities on these sites:
- 5) Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.

RMZ's along the type 3 and 4 streams and 30-foot Equipment Limitation Zones along type 5 streams protect the steeper slopes that are generally found adjacent to streams. Roads will be crowned, ditched and cross-drained. Ground tracked harvesting may be seasonally restricted. Ground tracked harvesting may be restricted to slopes less than 35%. Lead end suspension shall be required on all cable settings.

The KCWA Mass Wasting Map A-2 shows no hazard for mass wasting on the proposal site. The proposal complies with the prescriptions set forth in the Kennedy Creek Watershed Analysis (KCWA).

A DNR geologist remotely reviewed the site and found portions of Unit 1 were part of an ancient deep-seated landslide. These portions were not located on the toe of the landslide, nor were they located on areas with signs of instability.

- e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.
Approx. acreage new roads: 3 Approx. acreage new landings: 2 Fill source: Native
- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

The State Soil Survey has identified 27 acres of the proposal as having high erosion potential. The risk of sediment delivery to streams will be reduced by RMZs around type 3 and 4 streams, leave tree clumps around portions of some type 5 streams and equipment limitation zones around all type 5 streams.

Incidental erosion may occur resulting from the harvesting of logs and the soils that are exposed during and after road construction; however prudent road location, construction and maintenance as well as yarding restrictions (see B.1.d.5 above) will minimize erosion.

The proposal complies with the prescriptions set forth in the Kennedy Creek Watershed Analysis (KCWA).

Surface Erosion Rule 2 applies to Push Unit 1, which the KCWA Soil Erosion Potential Map shows as having low to moderate erosion potential. No harvest will occur within 100 feet of any typed water. The proposal complies with Surface Erosion Rule 2 Prescription Harvesting Option 1 of the KCWA.

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? *Approximate percent of proposal in permanent road running surface (includes gravel roads):*

Approximately 1.3% of the site will be covered with gravel road at the completion of the harvest.

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:
(Include protection measures for minimizing compaction or rutting.)

The harvest area is designed to minimize impacts to soil. Roads will be constructed during dry weather conditions. Storm water runoff will be collected by road ditches and diverted through cross-drain culverts and ditch-outs onto the forest floor. Culverts and ditch-outs will be placed to minimize the amount of ditch water that may flow directly into stream channels. Energy dissipaters are placed at culvert outlets to reduce sedimentation and control erosion. Grass seed and straw bales may be placed on the exposed areas to prevent and control soil erosion. Periodic inspection and maintenance of forest roads used in harvest activities will help ensure proper drainage and minimize erosion.

Logging operations will be conducted in such a manner as to avoid severe ground disturbance. RMZ's and leave trees will help limit ground disturbance, provide filtration and protect stream integrity, maintain slope stability, and protect water quality on all type 3 and type 4 streams (see B.3.a.1.b.). Lead end suspension will be required on all cable settings. Forest road layout will minimize yarding distances and yarding shall be suspended if soil rutting becomes excessive. Applicable operations of this sale will be temporarily suspended when there is the possibility of sediment being delivered to streams. Shovel yarding will be restricted during saturated soil conditions to prevent soil damage. In the event that logging corridors channel water, mitigation measures will be implemented such as construction of water bars and placement of slash/debris in corridors. The units will be replanted after the completion of harvest operations.

2. Air

- a. What types of emissions to the air would result from the proposal (i.e., dust from truck traffic, rock mining, crushing or hauling, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Minor amounts of engine exhaust from logging and road construction equipment and dust from vehicle traffic on roads will be emitted. If landing debris is burned after harvest is completed, wood smoke will be generated. There will be no emissions once the burning is complete.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No.

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:

If landing debris is burned, it will be in accordance with Washington State's Smoke Management Plan. A burn permit will be obtained before burning occurs.

3. Water

- a. Surface:

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. (See timber sale map available at DNR region office, or forest practice application base maps.)

a) Downstream water bodies:

Yes; streams associated with this sale flow into McLane Creek, Kennedy Creek, or Perry Creek, all of which flow into the Puget Sound.

b) Complete the following riparian & wetland management zone table:

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in Feet (per side for streams)
Wetland	0.7 acre	1	100
Stream (near Unit 2)	3	1	192
Stream	4	1	100
Stream	5	4	0

c) List RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures, and wind buffers.

RMZs for this proposal are designed in accordance with the Department's HCP procedures and their stream type identified by the streams' physical characteristics. This sale has a projected 100-year site index ranging from 165 to 192. RMZs average 192 feet wide in Unit 2 adjacent to the type 3 stream. RMZs are a minimum of 100 feet wide along all type 4 streams. Local knowledge of prevailing wind direction and observation of standing trees in nearby RMZs in recently harvested units determined no wind buffers were necessary.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) to the described waters? If yes, please describe and attach available plans.

☐ No ☒ Yes (See RMZ/WMZ table above and timber sale map available at DNR region office.)

Description (include culverts):

Due to safety and operational constraints felling and bucking may take place in or over type 5 streams. Logs may be yarded across the streams. The 30-foot equipment limitation zone will be observed. Water bars or other mitigation measures will be installed if greater than 10% of the soil is exposed within the zone. Trees may be cut and left in place within RMZs for safety or operational needs.

Timber harvest may occur as close as 192 feet (required average RMZ width) to the type 3 stream in Unit 2. Timber harvest may occur as close as 100 feet (required minimum RMZ width) to all type 4 streams in the proposal area.

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

None.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. (Include diversions for fish-passage culvert installation.)

☒ No ☐ Yes, description:

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

☐ No ☒ Yes, describe location:

All portions of 100-year floodplains are located within the RMZ's.

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

☒ No ☐ Yes, type and volume:

- 7) Does the sub-basin contain soils or terrain susceptible to surface erosion and/or mass wasting? What is the potential for eroded material to enter surface water?

The potential for surface and/or mass erosion exists in the headwaters of the WAU's, typically on tightly convergent slopes and headwalls with 65% slope or greater and/or where unstable soils are present. A majority of these sites occur near watercourses with deeply incised channels and steep headwall areas. A storm event could result in eroded material entering surface water. The potential for eroded material to enter surface water based on this proposal is low due to erosion control measures that will be included in the proposal. Furthermore, the terrain in the WAU is heavily vegetated and limits the occurrence of soil erosion; therefore, it is unlikely that a significant amount of eroded material will enter surface water.

Additional resource sensitivity and prescriptions are addressed under the Kennedy Creek Watershed Analysis in regards to surface erosion of soils and avoidance of areas defined by moderate to high mass wasting. Since harvest activities will follow prescriptions set forth by the KCWA and since no road construction or harvest activities will occur within the mass wasting units identified by the KCWA, this proposal complies with directives of the KCWA and the HCP. See B.1.d.5. and B.1.f.

- 8) *Is there evidence of changes to the channels in the WAU and sub-basin(s) due to surface erosion or mass wasting (accelerated aggradations, erosion, decrease in large organic debris (LOD), change in channel dimensions)?*
☐ No ☒ Yes, describe changes and possible causes:

Normally, there are few significant changes associated with peak flows in the WAU or sub-basins. However, two 100-year plus storm events occurred in the winters of 2007 and 2009. The rainstorms set rainfall and flood level records in Southwest Washington. The event caused many shallow mass-wasting events. Many stream channels were altered in this event due to extremely high stream flows with accompanying sediment loads and possibly large woody debris delivery. The full extent of this is not known.

- 9) *Could this proposal affect water quality based on the answers to the questions 1-8 above?*
☐ No ☒ Yes, explain:

See question B.3.a.2.

- 10) *What are the approximate road miles per square mile in the WAU and sub-basin(s)?*

WAU	Road Miles/ Miles ²
Kennedy Creek	2.8
Sub-basin	Road Miles/ Miles ²
#7, #8	Unknown
WAU	Road Miles/ Miles ²
McLane Creek	3.5
Sub-basin	Road Miles/ Miles ²
#7, #8	Unknown

Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor?
☒ No ☐ Yes, describe:

- 11) *Is the proposal within a significant rain-on-snow (ROS) zone? If not, **STOP HERE** and go to question B-3-a-13 below. Use the WAU or sub-basin(s) for the ROS percentage questions below.*
☒ No ☐ Yes, approximate percent of WAU in significant ROS zone.
Approximate percent of sub-basin(s):

- 12) *If the proposal is within the significant ROS zone, what is the approximate percentage of the WAU or sub-basin(s) within the significant ROS zone (all ownerships) that is (are) rated as hydrologically mature?*
- 13) *Is there evidence of changes to channels associated with peak flows in the WAU or sub-basin(s)?*
☐ No ☒ Yes, describe observations:

Refer to B.3.a.8.

- 14) *Based on your answers to questions B-3-a-10 through B-3-a-13 above, describe whether and how this proposal, in combination with other past, current, or reasonably foreseeable proposals in the WAU and sub-basin(s), may contribute to a peak flow impact.*

Past, current, or reasonable foreseeable proposals may slightly change the timing, duration, and/or amount of peak flow, and flow rates may increase slightly during low flow periods due to decreased transpiration and interception. However, the unit size, WMZ's, RMZ's and green-up policies should limit contributions to peak flow problems. See question B.3.a.16 below.

- 15) *Is there water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity that could be affected by changes in surface water amounts, quality, or movements as a result of this proposal?*
☐ No ☒ Yes, possible impacts:

The Department of Ecology lists surface water rights for Summit Lake, Perry Creek, McLane Creek and Swift Creek.

Changes in turbidity or volume and duration of water delivered down stream could affect users. However, due to mitigation measures that will be applied, this proposal will likely have minimal affect on the mentioned resources. See B.1.d.5. and B.3.a.1.c.

- 16) *Based on your answers to questions B-3-a-10 through B-3-a-15 above, note any protection measures addressing possible peak flow/flooding impacts.*

High stream flow rates will be mitigated with large organic debris supplied by RMZ's along type 3 and 4 streams, which will also help maintain bank stability. Maintaining unit sizes less than 100 acres and providing for green-up before harvesting adjacent DNR stands will help decrease potential peak flow/flooding impacts. The road locations, unit size, and RMZ's will prevent impacts to down stream surface water rights.

b. Ground Water:

- 1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

Relief culvert drainage may increase ground water recharge directly below culvert outlets.

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

Minor amounts of oil, fuel, and other lubricants may inadvertently be discharged to the ground as a result of heavy equipment use or mechanical failure. No lubricants will be disposed of on-site. All spills are required to be contained and cleaned-up. This proposed activity is expected to have no impact on ground water.

- 3) *Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or down slope of the proposed activity that could be affected by changes in groundwater amounts, timing, or movements as a result this proposal?*
☐ No ☒ Yes, describe:

The Department of Ecology lists ground water rights for various wells.

a) *Note protection measures, if any.*

See B.1.d.5., and B.3.a.1.c.

c. Water Runoff (including storm water):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Storm water runoff from roads and intercepted sub-surface flow will be collected by road ditches and ditch-outs and diverted onto the forest floor. Ditch-outs and cross-drain culverts will be placed to minimize the amount of ditch water directly entering existing stream channels.

- 2) Could waste materials enter ground or surface waters? If so, generally describe.

There is potential for logging slash to enter any of the type 3, 4 or 5 streams. Insignificant amounts of oil and other lubricants could be inadvertently discharged as a result of heavy equipment use; however, the potential to deliver oil and lubricants to a stream is low.

a) *Note protection measures, if any.*

Slash may be removed from flowing streams at the direction of the Contract Administrator and as required by the HPA. The potential for waste materials to enter surface water is minimal because equipment operations are limited to areas 192 feet from type 3 streams and 100 feet from type 4 streams. The amount of soil-exposing activity within 30 feet of type 5 streams will be limited 10% of the soil area. Leave tree concentrations in and around type 5 streams will further reduce equipment operations in areas with potential to impact ground or surface water.

Any spill that may be a threat to human health or the environment shall be reported immediately to the Department of Ecology and the Contract Administrator. Other spills shall be reported to the Contract Administrator. All spills are required to be contained and cleaned-up. Fuel tanks and other containers of hazardous materials shall be managed to prevent any drips, leaks or larger spills. Equipment seals, pressure lines, and other potential leak sources shall be maintained in good working condition to eliminate oil, hydraulic fluid, and other leaks.

Equipment maintenance activities, such as oil changes, shall be undertaken so that no oil or other hazardous materials reach the ground. Filters, batteries, and other equipment waste shall be deposited in barrels or otherwise temporarily stored to prevent the leaking of oil, acid, or other hazardous liquids onto the ground.

- d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:
(See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-3-a-16, B-3-b-3-a, and B-3-c-2-a.)

4. Plants

- a. Check or circle types of vegetation found on the site:

☒deciduous tree: ☒alder, ☒maple, ☐aspen, ☐cottonwood, ☐western larch, ☐birch, ☐other:
☒evergreen tree: ☒Douglas fir, ☐grand fir, ☐Pacific silver fir, ☐ponderosa pine, ☐lodgepole pine,
☒western hemlock, ☐mountain hemlock, ☐Englemann spruce, ☐Sitka spruce,
☒red cedar, ☐yellow cedar, ☐other:
☒shrubs: ☒huckleberry, ☒salmonberry, ☒salal, ☒other: **Oregon grape**
☒grass
☐pasture
☐crop or grain
☒wet soil plants: ☐cattail, ☐buttercup, ☐bullrush, ☒skunk cabbage, ☒devil's club, ☐other:
☐water plants: ☐water lily, ☐eelgrass, ☐milfoil, ☐other:
☒other types of vegetation: **swordfern**
☐plant communities of concern:

- b. What kind and amount of vegetation will be removed or altered? (See answers to questions A-11-a, A-11-b, B-3-a-1-b and B-3-a-1-c. The following sub-questions merely supplement those answers.)

All conifer and hardwood trees, except the wildlife leave trees, green recruitment trees and the vegetation within the RMZs, will be removed as part of this harvest proposal. Understory vegetation will be disturbed and/or reduced within the proposed harvest area as a result of timber felling, bucking, yarding and site prep operations. Most of the vegetation will re-establish after the harvest is completed.

- 1) Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See landscape/WAU and adjacency maps on the DNR website at: <http://www.dnr.wa.gov> under "SEPA Center.")

Unit 1	Age and Species
north	64 year-old Douglas-fir
east	73 year-old Douglas-fir
south	90 year-old Douglas-fir
west	11 year-old Douglas-fir
Unit 2	Age and Species
north	12 year-old Douglas-fir
east	72 year-old Douglas-fir
south	19 year-old Douglas-fir
west	81 year-old and 19 year-old Douglas-fir

Second-growth stands immediately adjacent to the removal area consist of mature Douglas-fir in the dominant canopy position with occasional western hemlock and western redcedar occupying dominant, co-dominant or suppressed canopy positions. In some wetter areas such as riparian zones, red alder frequently holds dominant and co-dominant canopy positions.

Reproduction stands consists of a single cohort of relatively homogenous Douglas-fir with some western hemlock in co-dominant canopy positions. These stands typically have a high density of stems per acre and may be in the stem exclusion phase of development.

- 2) Retention tree plan:

Unit	Distribution Method for Retention Trees and Snags	Acres in Leave Trees	Minimum Trees To Be Retained
1			Unit Total: 472
	Clumps	5	472
	Total Leave Tree Acres	5	--
2			Unit Total: 456
	Clumps	2	225
	Scattered Individuals	N/A	231
	Total Leave Tree Acres	2	--

Portions of Unit 1 are highly visible from State Route 8, which the DNR manages for aesthetics. To mitigate aesthetic impacts, leave tree dispersal was concentrated on the lower slopes. Therefore, the leave tree spacing at the ridgetop is greater than 400 feet. See B.10.b.2. and B.10.c.

- c. List threatened or endangered *plant* species known to be on or near the site.

TSU Number	FMU ID	Common Name	Federal Listing Status	WA State Listing Status
None Found in Database Search				

- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

RMZ's along type 3 and 4 streams (and leave trees placed around type 5 streams), along with individual and clumped leave trees will preserve native vegetation and serve as a seed source for reestablishing forest vegetation. Within two years after harvest the site will be hand planted with conifer seedlings which will subsequently be surveyed and treated until they are free to grow from brush/woody plant competition.

5. Animal

- a. Circle or check any birds animals *or unique habitats* which have been observed on or near the site or are known to be on or near the site:

birds: ☒hawk, ☐heron, ☐eagle, ☒songbirds, ☐pigeon, ☒other: crow
mammals: ☒deer, ☒bear, ☐elk, ☐beaver, ☒other: squirrel
fish: ☐bass, ☐salmon, ☒trout, ☐herring, ☐shellfish, ☐other:
unique habitats: ☐talus slopes, ☐caves, ☐cliffs, ☐oak woodlands, ☐balds, ☐mineral springs

- b. List any threatened or endangered species known to be on or near the site (include federal- and state-listed species).

TSU Number	FMU ID	Common Name	Federal Listing Status	WA State Listing Status
None Found in Database Search				

The proposal is in the South Puget HCP Planning Area, which has not been surveyed in its entirety for marbled murrelet habitat. A DNR biologist has been on site and verified no suitable marbled murrelet habitat exists on the

proposal site. In Unit 2, 18 suitable marbled murrelet nest platform trees exist. These trees did not create a five acre suitable habitat block.

This proposal is located within the range of potential Bull Trout habitat.

- c. Is the site part of a migration route? If so, explain.
☒ Pacific flyway ☐ Other migration route: Explain if any boxes checked:

This proposal is located in the Pacific flyway. Migratory waterfowl use the Pacific flyway however, the area for this proposal is not generally the type of area used for resting or feeding by migratory waterfowl. While migrating through Pacific Northwest forests, many Neotropical birds are closely associated with riparian areas, cliffs, snags, and structurally unique trees. Riparian areas and special habitats are protected through implementation of DNR's Habitat Conservation Plan.

- d. Proposed measures to preserve or enhance wildlife, if any:

By designing this sale to comply with the State's HCP, wildlife and wildlife habitat will be preserved and enhanced. The small unit design is conducive to ungulate feeding patterns. Scattered leave tree clumps are favorable to raptor perching, feeding and nesting. Select placement of leave tree clumps will preserve habitat such as type 5 streams. Well engineered and built roads reduce potential water quality impacts for down stream fish populations. Grass seeding exposed soils should protect water quality and provide forage. Large diameter leave trees will enhance wildlife habitat value of the future stand. RMZs along type 3 and 4 streams will protect water quality; provide corridors for wildlife; and maintain habitat for fish (including Bull Trout habitat), amphibians, and other riparian obligate species.

In Unit 2, the majority of the trees with marbled murrelet platforms will be retained on this unit as large and/or structurally unique trees and count towards leave tree calculations.

6. Energy and Natural Resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.
Does not apply.
- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.
Does not apply.
- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:
Does not apply.

7. Environmental Health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.
There is a minimal hazard incidental to operating heavy equipment. There is the possibility of fire ignition during the operating period, especially during fire season.
- 1) Describe special emergency services that might be required.
Any spill that may be a threat to human health or the environment shall be reported immediately to the Department of Ecology and the Contract Administrator. Other spills shall be reported to the Contract Administrator. All spills are required to be contained and cleaned-up. Fuel tanks and other containers of hazardous materials shall be managed to prevent any drips, leaks or larger spills. Equipment seals, pressure lines, and other potential leak sources shall be maintained in good working condition to eliminate oil, hydraulic fluid, and other leaks.
Equipment maintenance activities, such as oil changes, shall be undertaken so that no oil or other hazardous materials reach the ground. Filters, batteries, and other equipment waste shall be deposited in barrels or otherwise temporarily stored to prevent the leaking of oil, acid, or other hazardous liquids onto the ground.
There are not any special emergency services required at this time. Pump trucks and/or pump trailers will be required on site during fire season.
- 2) Proposed measures to reduce or control environmental health hazards, if any:
No oil or lubricants will be disposed of on site. Fire tools and equipment will be kept on site during fire season. The cessation of operations may occur during periods when the risk of fire is unacceptably high. In the event of a lubricant spill the Purchaser will contact the DNR and the Department of Ecology. See water runoff section, question B-3-c-2-a.
- b. Noise
- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?
Does not apply.
- 2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from this site.

Minimal noise levels associated with logging operations and truck traffic. There should be no long-term impacts.

- 3) Proposed measures to reduce or control noise impacts, if any:

Does not apply.

8. Land and Shoreline Use

- a. What is the current use of the site and adjacent properties? *(Site includes the complete proposal, e.g. rock pits and access roads.)*
Forest land.
- b. Has the site been used for agriculture? If so, describe.
No.
- c. Describe any structures on the site.
None.
- d. Will any structures be demolished? If so, what?
No.
- e. What is the current zoning classification of the site?
Forest Land.
- f. What is the current comprehensive plan designation of the site?
Long-term Forestry.
- g. If applicable, what is the current shoreline master program designation of the site?
Does not apply.
- h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.
No.
- i. Approximately how many people would reside or work in the completed project?
None.
- j. Approximately how many people would the completed project displace?
None.
- k. Proposed measures to avoid or reduce displacement impacts, if any:
Does not apply.
- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
None.

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
None.
- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
None.
- c. Proposed measures to reduce or control housing impacts, if any:
Does not apply.

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principle exterior building material(s) proposed?
Does not apply.
- b. What views in the immediate vicinity would be altered or obstructed?
- 1) *Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?*
☐ No ☒ Yes, viewing location:

The proposal may be visible in the background from Delphi Road area.

- 2) *Is this proposal visible from a major transportation or designated scenic corridor (county road, state or interstate highway, US route, river, or Columbia Gorge SMA)?*
☐ No ☒ Yes, scenic corridor name:

State Route 8.

- 3) *How will this proposal affect any views described in 1) or 2) above?*

It will change from a stand of mature timber to a variable retention harvest with RMZ's adjacent to the type 3 and 4 streams and scattered leave trees throughout. See B.4.b.2.

- c. Proposed measures to reduce or control aesthetic impacts, if any:

Scattered individual and clumped leave trees have been placed in strategic locations and shapes throughout the visible unit of the sale to mitigate the impact on aesthetics.

11. Light and Glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Does not apply.

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

Does not apply.

- c. What existing off-site sources of light or glare may affect your proposal?

Does not apply.

- d. Proposed measures to reduce or control light and glare impacts, if any:

Does not apply.

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?

Informal recreational activities include hunting, berry picking and sightseeing.

- b. Would the proposed project displace any existing recreational uses? If so, describe:

Informal recreational activities, including hunting, berry picking and sightseeing will be temporarily displaced during logging operations.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

None at this time.

13. Historic and Cultural Preservation

- a. Are there any places or objects listed on, or proposed for national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

None.

- b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

None.

- c. Proposed measures to reduce or control impacts, if any:
(Include all meetings or consultations with tribes, archaeologists, anthropologists or other authorities.)

This proposal was screened for potential archeological sites or artifacts using the P&T special concerns report, historical topographic and GLO maps during the pre-sales phase. No historic sites are known to be on the proposal site. In the event that any unknown archaeological resources are encountered, ground disturbing activities would be halted and the DNR Archaeologist contacted to survey the site and develop a Site Protection Plan.

14. Transportation

- a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

Hauling will occur on forest roads S-LINE, S-1000, S-0010, S-2000, S-2200, S-2220, B-LINE, B-8000, B-8850, Spur 1, Spur 2 and county road Summit Lake Road. These roads are accessed by State Route 8.

- 1) *Is it likely that this proposal will contribute to an existing safety, noise, dust, maintenance, or other transportation impact problem(s)?*

No.

- b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

Does not apply.

- c. How many parking spaces would the completed project have? How many would the project eliminate?

Does not apply.

- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

See A.11.c.

- 1) *How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?*

This proposal should not impact the overall transportation system in the surrounding area.

- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No.

- f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

Approximately ten to fifteen log truck trips per day and two to four administrative trips per week will be generated until the completion of timber harvest. After the project is complete, the number of vehicular trips will return to present levels.

- g. Proposed measures to reduce or control transportation impacts, if any:

None.

15. Public Services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

No.

- b. Proposed measures to reduce or control direct impacts on public services, if any.

None.

16. Utilities

- a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

None.

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

None.

C.

SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Completed by: for Jim Schindler / Forester I Date: 10/21/09
Title

Reviewed by: Marcus A. Johns Date: 10/23/09
Title

Comments: _____